

Appendix A

EOC Algebra I Exam

Blueprint Summary Table

Category	% of Questions	SD Standard	Bloom's Level
Transform Algebraic Expressions	15%	9-12.A.1.1.	Comprehension
Sample Item: What is the value of $(4x)^2 + 3$ when $x = 3$? A. 39 B. 147 C. 153 D. 225			
Solve Equations & Inequalities	20%	9-12.A.2.1 9-12.A.2.2	Comprehension Application
Sample Item: Solve for x. $-7 = 4 - (-x + 3)$ A. -10 B. -8 C. 8 D. 10			
Mathematical Models	15% (some integrated with Number Sense or S & P)	9-12.A.3.1 9-12.A.3.2	Application Comprehension

Appendix A (Continued)

Sample Item:

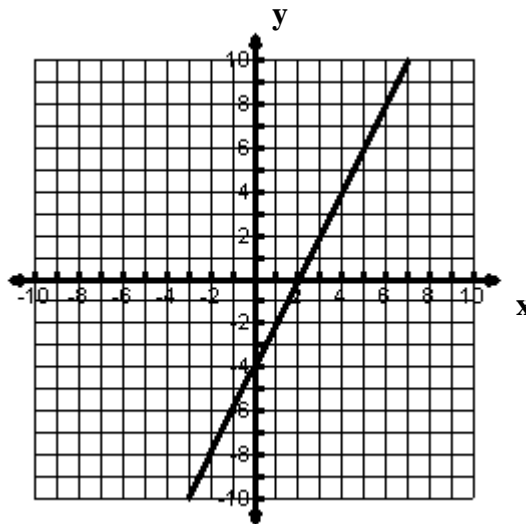
What is the slope of the line graph?

A. $\frac{2}{1}$

B. $\frac{1}{2}$

C. $-\frac{1}{2}$

D. $-\frac{2}{1}$



Properties & Behaviors of Relations, Functions, and Inverses

15% (some integrated with Number Sense)

9-12.A.4.1.

Application

Sample Item:

What is the equation of the line containing the point $(-7, 4)$ and having a slope of **zero**?

A. $y = -4$

B. $x = 7$

C. $y = 4$

D. $x = -7$

Apply measurement concepts

2% (integrated with other standards)

9-12.M.1.2.

Comprehension

Measurement concepts are integrated into the algebra items

Characteristics of the real number system

5% (some integrated with Alg standards)

9-12.N.1.1
9-12.N.1.2

Comprehension
Comprehension

Sample Item:

Find two real numbers between $\frac{2}{7}$ and $\frac{8}{9}$.

- Could be multiple choice or a constructed response item

Appendix A (Continued)

Operations with real numbers	13 % (some integrated with Alg standards)	9-12.N.2.1	Comprehension
Sample Item: What would be true of the product of x and y if x is positive and y is negative? A. xy is positive B. xy is negative C. $xy = 0$ D. Cannot be determined			
Problem Solving	2 % (integrated with Alg standards)	9-12.N.3.1. 9-12.N.3.2	Analysis Comprehension
Sample Item: Without a calculator, which expression shows the quickest way to add 220, 780, and 611? A. $220 + 611 + 780$ B. $(220 + 611) + 780$ C. $220 + (611 + 780)$ D. $(220 + 780) + 611$			
Data Analysis	15% (some integrated with Alg standards)	9-12.S.1.1 9-12.S.1.2. 9-12.S.1.3	Analysis Comprehension Analysis
Probability	5%	9-12.S.2.1 9-12.S.2.2	Knowledge Comprehension
Sample Item: A six-sided die is rolled 7 times. A 5 was rolled the first 4 times. The theoretical probability of rolling a 5 on the next roll is: A. $\frac{5}{7}$ B. $\frac{4}{5}$ C. $\frac{1}{6}$ D. $\frac{4}{7}$			

Appendix A

(Continued)

Number of items should be between 45 and 60 items to adequately sample the range of knowledge and skills included in Algebra 1.

Distribution by Goal:

Algebra	60%
Measurement	2% (integrated with other standards)
Number Sense	20% (some integrated with Alg standards)
Statistics & Probability	20% (some integrated with Alg standards)